IYS Notes – Joanne Breckenridge

Specimen removals from bongo samples

During IYS 2019, specimens were removed from the formalin side of the samples. Where this removal was recorded in the metadata, the taxonomist processing the samples corrected abundances and made a note that specimens were removed at sea, however sometimes the removal was not recorded. Some records of removals can be found on the tab ‘Samples collected’ in the file ‘IYS cruise logbook\_2019’ that are not in the metadata. There were separate removals for ‘Charlie samples’ that were recorded in the metadata but not under ‘Samples collected’. All species removals for Professor Kaganovskiy bongo samples are listed below. Under ‘Action’ it is recorded whether further correction of abundance was required.

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| --- | --- | --- | --- | --- |
| **Site** | **Removal** | **Info source** | **Discussion** | **Action** |
| 3 | 1 Aequorea | Bongo metadata | No Aequorea present in this sample in current data | Add |
| 10 | 12 Salpa aspera | Samples collected | Salps in the sample, 12 in >10 size fraction. But Natalie has not noted that these were removed at sea and (as seen from this list) she corrected according to bongo metadata or label info only. | Add |
| 11 | 13 salps, 3 N. cristatus, 2 E. pacifica | Samples collected. Bongo metadata conflict (2 N. cristatus). | No salps or late stage Neocalanus present in sample data. 2 E. pacifica present, but were sexed so were from the sample. Bongo metadata mentions salp removal without giving number removed. | Add |
| 13 | 10 N. cristatus, 2 Sergestes similis, 2 T. spinifera | Bongo metadata, label | Natalie has noted these and adjusted. | None |
| 14 | 9 N. cristatus + 4 N. cristatus for Charlie | Bongo metadata, Sample label | Natalie has noted 13 removals and adjusted. | None |
| 19 | 1 Beroe | Bongo metadata, Sample label | No Beroe present in sample data | Add |
| 33 | 5 Salpa aspera | Bongo metadata | Natalie has noted this, but she added 1, not 5. | Add 4 |
| 39 | 9 N. cristatus | Bongo metadata | Natalie has noted these and adjusted. | None |
| 40 | 9 N. cristatus | Samples collected | Natalie has not noted this and the removal was not noted in the metadata so I don’t believe she has made any adjustment. | Add |
| 41 | 9 N. cristatus | Samples collected (net # switched), Sample label | Natalie has noted these and adjusted. | None |
| 42 | 6 N. cristatus | Samples collected | Natalie has noted these and adjusted. | None |
| 43 | 9 N. cristatus | Samples collected, sample label | Natalie has noted these and adjusted. | None |
| 44 | 3 N. cristatus | Samples collected | Natalie has not noted this and the removal was not noted in the metadata so I don’t believe she has made any adjustment. | Add |
| 45 | 9 N. cristatus | Samples collected | Natalie has not noted this and the removal was not noted in the metadata. She did note in her own metadata that it was on the sample label but I know she has not made any adjustment because her count here is only 4. | Add |
| 46 | 9 N. cristatus | Samples collected | Natalie has not noted this and the removal was not noted in the metadata so I don’t believe she has made any adjustment. | Add |
| 47 | 1 Clio pyramidata | Samples collected | Not present in sample data | Add |
| 54 | 1 Primno pacifica | Samples collected, sample label | Natalie adjusted based on label so added 12 individuals. From samples collected, it was one 12mm individual. | Remove 11 & correct name |
| 55 | 3 N. cristatus | Samples collected | Natalie has not noted this and the removal was not noted in the metadata so I don’t believe she has made any adjustment. (only 2 recorded in sample) | Add |

Note that Natalie had 12 *Primno pacifica* at Kaganovskiy station 54 with a note that these were removed at sea. In ‘samples collected’ it notes removal of one *P. pacifica* of 12 mm in length, so I have corrected the count to 1. *Primno pacifica* is not a species. I have changed the record to *P. abyssalis* because it is recorded as an amphipod and the size is consistent with *P. abyssalis* rather than *Themisto pacifica*.

In total, abundances have been adjusted for 12 samples. Brian Hunt has advised that we should be cautious of the species id for *Neocalanus* picked from the samples. I have checked to see what proportion of *Neocalanus* C5 counted from Professor Kaganovskiy samples were *flemingeri/plumchrus* and the answer is zero. For C4, the proportion of *flemingeri/plumchrus* was 0.034. I have therefore left all picked *Neocalanus* as C5 *N. cristatus*.

During IYS 2020, no specimens were removed from the formalin samples.

During IYS 2022, Alexei Pinchuk and Jackie King have confirmed that specimens were not removed from the formalin side of the bongo net aboard the Shimada and Franklin, respectively. Aboard the Tinro, Evgeny has advised of large specimens being moved into a separate jar. Based on the metadata (IYS2022 Cruise logbook - Tinro), I see that at station 31, salps were taken from the formalin side ‘salps from fixed sample but stored in the size-fractionated zooplankton bag’. In the abundance data, there are no salps recorded at station 31, so abundance had not yet been corrected for the removals. Additions were made as follows: Station 5 (88 *Salpa aspera* and 1 *Sergestes* sp.), Station 10 (1 *Salpa aspera*), Station 15 (1 *Aequoria*), Station 29 (14 *Salpa aspera*), and Station 31 (72 *Salpa aspera*).

From the frozen side, I can see that 15 salpa aspera were also present at station 9, even though they are not recorded in the formalin side. 11 Sergestes were taken from station 26, but none were present on the formalin side.